

WHAT IS CLAIMED IS:

1. A system for detecting a level of liquid in a tank, comprising:
 - a float which produces a displacement with the liquid level;
 - a sensor part provided to the tank, the sensor part sensing a position of the liquid level in accordance with the displacement of the float; and
 - a casing arranged in the tank, the casing being isolated from the liquid, the casing accommodating the sensor part.
2. The system as claimed in claim 1, further comprising a magnet which rotates in accordance with the displacement of the float, wherein the sensor part senses an angle of rotation of the magnet magnetically.
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3. The system as claimed in claim 1, further comprising a non-contact coupling which couples the float and the sensor part through the casing in a non-contact way.
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4. The system as claimed in claim 1, wherein the sensor part comprises a magnetic-detection type rotation-angle sensor.
5. The system as claimed in claim 4, wherein the rotation-angle sensor comprises a housing, yokes, a Hall element, and a circuit board.
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6. The system as claimed in claim 5, wherein the Hall element is disposed between extensions of the yokes.
- 25 7. The system as claimed in claim 5, wherein the Hall element is mounted on the circuit board.
8. The system as claimed in claim 1, wherein the sensor part comprises a potentiometer.

9. A system for detecting a level of liquid in a tank, comprising:
 - a float which produces a displacement with the liquid level;
 - a sensor part provided to the tank, the sensor part sensing a position of the liquid level in accordance with the displacement of the float;
 - 5 a casing arranged in the tank, the casing being isolated from the liquid, the casing accommodating the sensor part; and
 - a magnet which rotates in accordance with the displacement of the float, wherein the sensor part senses an angle of rotation of the magnet magnetically.
10. A system for detecting a level of liquid in a tank, comprising:
 - a float which produces a displacement with the liquid level;
 - a sensor part provided to the tank, the sensor part sensing a position of the liquid level in accordance with the displacement of the float;
 - 15 a casing arranged in the tank, the casing being isolated from the liquid, the casing accommodating the sensor part; and
 - a non-contact coupling which couples the float and the sensor part through the casing in a non-contact way.